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Community Relations Plan

for

Higgins Wood Preserving

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COMMUNITY RELATIONS PLAN

for

**Higgins Wood Preserving State Superfund Site
Lufkin, Angelina County, Texas**

Updated January 2002

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COMMUNITY RELATIONS PLAN

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**Higgins Wood Preserving State Superfund Site
Lufkin, Angelina County, Texas**

Updated January 2002

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Table of Contents

Overview of Community Relations Plan	1
Site Profile:	
Site Location and Description	1
Background and Operating History	2
Baseline Risk Assessment	6
Community Profile	8
Community Involvement and Concerns	8
Specific Objectives of the Community Relations Program	9
Community Relations Techniques	10
Elected Officials Address List	11
Area News Media	12
Key Project Personnel	13
Program Document Repositories	13

Appendix

Location Map

Site Map

Texas Register Notices

**COMMUNITY RELATIONS PLAN
for
Higgins Wood Preserving
Proposed State Superfund Site**

Lufkin, Angelina County, Texas

Updated January 2002

Overview of Community Relations Plan

This community relations plan (CRP) identifies issues of community concern regarding the Higgins Wood Preserving State Superfund Site (Higgins) Lufkin, Angelina County, Texas. This CRP also outlines the anticipated community relations activities to be conducted during each phase of the cleanup at the Higgins site.

The Higgins community relations plan has been prepared to aid the Texas Natural Resource Conservation Commission (TNRCC) in developing a community relations program tailored to the needs of the community affected by the Higgins site. The TNRCC will conduct community relations activities to ensure that the local public has input to decisions and access to information about Superfund activities at the Higgins site.

The information in this plan is based primarily on the Hazard Ranking System (HRS) package for the Higgins site. The TNRCC has the responsibility for managing the cleanup of this site, and the TNRCC Remediation Division will oversee all community relations activities at the site.

Site Profile

Site Location and Description:

Latitude 31E 20' 27" N, Longitude 94E 42' 51" W

The former Higgins Wood Preserving site is an approximate 31-acre tract located on the 400 block of North Timberline Drive (US Hwy. 59) in Lufkin, Texas. The site is situated in an area of mixed industrial, commercial and residential use, approximately three-quarters of a mile east downtown Lufkin. The western half of the Higgins site is presently occupied by the Towne Square Center -- a 15.7 acre commercial shopping center. Limited commercial development is also presently located along the northwest property line. The undeveloped eastern portion of the site is bounded on the north by a mixed commercial and residential area, on the east and southeast by residential areas consisting primarily of single-family homes and on the south by the Lufkin Creosoting Company. The Georgia-Pacific Synthetic Resins plant is located approximately 250 feet south of the site, adjoining

the eastern boundary of Lufkin Creosoting. Old Lufkin Creosoting Company is also a State Superfund site.

Background and Operating History:

Available historical records indicate that the present location of the Higgins site has been used as a lumber mill by the Lufkin Land and Lumber Company as early as 1906. The property was used by various commercial wood Creosoting concerns during the period of 1937 to 1973. Documented information regarding facility practices is not presently available. Wood Creosoting operations of this era commonly involved pressure treatment of wood within steel retort cylinders. The pressure treatment process commonly generated a waste oil/water mixture associated with retort cylinder drainage. Wastewater not suitable for recycling were typically either discharged to local drainage or retained in on-site holding basins. Surface runoff from the process plants and treated lumber storage areas was a second source of off-site discharge. Locations of former wastewater impoundments and processing areas on the Higgins site have been determined from historical aerial photographs.

The Creosoting facility was reportedly demolished in 1974, and the property was subsequently purchased for development as a commercial retail center. Construction of the existing Towne Square Center commenced in 1976. During site development activities wastewater discharges were reported to have occurred to nearby Hurricane Creek as a result of draining and filling operations on the on-site wastewater ponds.

Preliminary environmental site inspections conducted by the Texas Water Commission (TWC), predecessor agency to the TNRCC, in 1990 found residual concentrations of creosote constituents to be present within surface soils and local drainage ditch sediments on the former Higgins Wood Preserving site.

On September 23, 1990, a the TWC collected three soil samples from the former pond closure area on the undeveloped portion of the site, as well as one background soil sample form the southeast corner of the property. Sampling records noted the apparent presence of creosote within on-site ditch sediments and within soils overlying the former pond locations. The soil samples were submitted to the Texas Department of Health lab in Tyler for analysis of volatile organic, semi-volatile organic and pesticide content. Results of these analyses found various semi-volatile organic compounds to be present in the pond-area and ditch soil samples at levels exceeding background concentrations. Volatile organic compounds were reported at minor concentrations. No pesticides were found at levels exceeding the method detection limit.

On October 3, 1990, the TWC revisited the site to inspect the condition of Hurricane Creek, both upstream and downstream of the point of storm water discharge from the Higgins site. Downstream of the discharge point apparent creosote wastes were

discovered within sediments along the creek bed and banks. No samples were collected at this time. The TWC reported that further inspection of Hurricane Creek discovered similar affected sediments within the storm water ditch draining the Lufkin Creosote and Georgia-Pacific plants about 500 feet downstream in Hurricane Creek from the Higgins site.

On the basis of these findings, the TWC issued a state Superfund Hazard Ranking System (HRS) evaluation for the site on October 23, 1990. The principal environmental concerns identified in the HRS report were a possible release of hazardous constituents to the ground water of the Eocene Yegua Formation and a possible release of hazardous constituents to the surface waters and sediments of Hurricane Creek and confluent streams.

To further evaluate the reported distribution of creosote wastes, Groundwater Services, Inc. (GSI) conducted a visual site inspection in 1991. In general, the field observations were consistent with the findings of the 1990 TWC site inspections. The presence of creosote wastes within near-surface soils appeared to coincide with the former locations of wastewater surface impoundments.

The Remedial Investigation (RI) Work Plan, based on available information regarding historical industrial operations, identified three primary source areas for the potential release of hazardous constituents: wood-treating process areas, wastewater surface impoundments, and, possibly to a lesser degree, treated wood storage areas. These three areas were the focus of the subsequent investigations.

A Phase I RI was conducted in 1993 and Phase II and III RI's were conducted by ERM-Southwest in 1995 and 1996 to characterize the geological and hydrologic site conditions and to evaluate possible environmental impacts.

The conclusions of the RIs were as follows:

Shallow ground water has been observed at the site in two upper transmissive zones, described in the reports as geologic Units III and V. Ground water is generally confined in both units. A downward hydraulic gradient exists between Units III and V in the eastern portion of the site and an upward gradient exists in the western portion of the site. Unit V ground water is also observed to be under artesian conditions on the western edge of the site.

Ground water flows within the uppermost transmissive zone (Unit III) generally to the west and southwest at approximately 250 to 365 feet/yr. Ground water flows within the second transmissive zone (Unit V) generally to the west.

A continuous predominately hard silty clay zone separates the two uppermost transmissive zones and acts like an aquitard.

The presence of residual creosote constituents, principally PAHS, was reported in the surface and near-surface soils in the vicinity of former on-site wastewater impoundments.

Semi-volatile and volatile organic compounds were detected in on-site and off-site monitor wells completed in a shallow water-bearing stratum. None of the constituents reported above the limit of quantitation (LOQ) in the off-site monitor wells exceeded MCLS. However, PCP was detected below its LOQ (0.050 mg/l) but above its MCL (0.001 mg/l) in a ground water sample from off-site well MW-15. In addition, PCP was not detected in samples collected by the TNRCC from wells located on the A-1 Auto Site located adjacent to well MW-15.

DNAPL has been observed in five on-site monitor wells and LNAPL has been observed in one on-site monitor well. The occurrence of DNAPL within Unit III monitor wells appears to be structurally controlled by the top of Unit IV, but is also influenced by sediment facies associations and secondary sedimentary structures.

A Remedial Investigation (RI) that has been accepted by the TNRCC. The RI included a Phase I RI conducted in 1993 and Phase II and III RI's conducted in 1995 and 1996, respectively, to characterize the geological and hydrologic conditions and evaluate possible environmental impacts at the Site. The conclusions presented in the RI include:

- ! The presence of residual creosote constituents, semi-volatile organic compounds (SVOC) consisting primarily of polyaromatic hydrocarbons (PARs), was reported in the surface and near-surface soils in the vicinity of former on-site wastewater impoundments.
- ! Volatile and semi-volatile organic compounds were detected in on-site and off-site monitoring wells completed in a shallow water-bearing zone (Unit III).
- ! Dense Non-Aqueous Phase Liquid (DNAPL) was observed in five on-site monitoring wells and Light Non-Aqueous Phase Liquid (LNAPL) was observed in one on-site monitoring well. [As discussed later, since completion of the RI, DNAPL has also been detected in three off-site wells].
- ! With the exception of low concentrations of ethylbenzene and xylenes, none of the constituents of potential concern (COPCs) were detected in the surface water samples collected from Hurricane Creek.

! Fluoranthene, pyrene, ethylbenzene and xylenes were detected in sediment samples collected from Hurricane Creek. However, the presence of organic constituents in Hurricane Creek cannot be attributed solely to the Site.

The RI demonstrated that affected groundwater is limited to an upper zone of poor ambient water quality, and that this zone is not connected with, and is not likely to migrate to, groundwater that is a current source of drinking water. Residual creosote in the groundwater-bearing zone maintains the dissolved plume, but retardation and natural bio-degradation processes may be stabilizing migration of the dissolved phase plume.

Based on the information generated during site investigation, risk assessment, and through applying the presumptive remedies process, site specific factors and cost considerations, the most appropriate remedy for impacted soil at the Higgins Site is capping. Also, based on the above, the most appropriate remedy for the impacted groundwater is NAPL recovery to the extent practicable, with monitored natural attenuation of the dissolved phase semivolatile organic compounds (SVOC).

The Higgins Wood Preserving site entered the Voluntary Cleanup Program (VCP) on January 29, 2002. TNRCC will continue to monitor cleanup work at the site.

Baseline Risk Assessment

A Baseline Risk Assessment for the Higgins site was completed in April 1999. The objective of the risk assessment is to evaluate the potential for human health effects as a result of potential exposure to environmental media affected by chemical constituents related to historical creosote wood treating operations at the site. Currently, the west half of the site is occupied by a strip shopping center while the east half is undeveloped and enclosed by an eight-foot tall metal wire mesh fence. The surrounding area consists primarily of commercial businesses, other industrial sites and residential areas.

Based on the results of a Remedial Investigation, the constituents of potential concern (COPCS) include volatile and semivolatile organic compounds detected in surface and subsurface soils, ground water, surface water and sediment; the primary COPCs are polycyclic aromatic hydrocarbons (PAHS) and pentachlorophenol (PCP).

Based on historical land use in the area, current land use, and local zoning ordinances, potential future land use for the site is likely to remain industrial and/or commercial. Shallow ground water affected by the Higgins site is not a current drinking water source but because it meets the States' definition of a usable aquifer it is considered to be a potential drinking water source in the future. However, use of shallow ground water as a drinking water source is not expected based on the fact that water is provided by the City of Lufkin, which is taken from deeper unaffected sands, and is readily available to local users. In addition, shallow ground water is of poor quality and not desirable for drinking or household use.

Mechanisms of potential constituent migration include air dispersion of particulate and volatile emissions from surface soils, surface water transport of constituents from storm water runoff and potential ground water transport of dissolved phase constituents.

Routes of potential human exposure evaluated include ingestion, inhalation, and dermal absorption pathways. Exposure scenarios evaluated include 12 variations of current and future land usage, for both on-site (developed and undeveloped property) and off-site receptors for each affected environmental media.

The equations used for estimation of human intake are standard intake equations from USEPA RAGS guidance and the TNRCC Risk Reduction Rules; this risk assessment has almost entirely relied upon conservative default parameters at the TNRCC's request. Therefore, constituents or areas of the site which are indicated to have excess risks by these methods do not necessarily represent actual risks. This assessment identifies the constituents and areas of the site that present the greatest risk relative to the other constituents and areas of the site in order to focus future site activities, if any, on the most significant issues.

The results of the human health risk assessment indicate that a total of eight soil constituents exceeded an individual risk level of 1×10^{-6} for all pathways combined. Seven of these are PAHs and one is pentachlorophenol. In addition, one soil constituent (naphthalene) exceeded a hazard index of 1 for all pathways combined. When all scenarios are compared, those presenting the highest risk are the future land use scenarios for the undeveloped property involving the industrial worker scenario and the construction/utility worker scenario. For the industrial worker scenario, these results are due to a very conservative method used for assessment of dermal exposure to carcinogenic PAHs in surface soils and a new inhalation reference dose issued in September 1998 for naphthalene.

A comparison of on-site and off-site ground water concentrations with TNRCC ground water Medium Specific Concentrations (MSCS) indicated that exposure to both on-site and off-site ground water, assuming a drinking water scenario, would result in unacceptable risk. Maximum reported ground water concentrations for samples collected from on-site monitor wells exceeded Maximum Contaminant Levels (MCLS) for 4 constituents and exceeded Ground Water Industrial MSCs (GW-Inds) for 12 additional constituents. Ground water analytical results for a ground water sample collected from off-site well MW-15 exceeded the MCL for pentachlorophenol.

A Feasibility Study for the Higgins site was initiated in April 1999.

Community Profile

Lufkin is located in Angelina County in central east Texas. The heavily wooded area serves the timber, lumber and paper milling industries. Other local industries are truck trailers, concrete products, iron and steel castings and cabinet works.

The 1998-99 *Texas Almanac* list the population of Lufkin at 32,851.

The U.S. Census Bureau estimated the 2000 population of Angelina County at 80,130, a 14.7% increase from the 1990 U.S. Census estimate. The 2000 ethnicity estimates of Angelina County by the U.S. Census was: white, 75.1%; black, 14.7%; American Indian, 0.3%; Asian, 0.7%; and Hispanic, 14.3%.

Community Involvement and Concerns

A public meeting was held in Lufkin on October 24, 1990, to propose the Higgins Wood Preserving and Old Lufkin Creosoting sites to the State Registry of Superfund Site.

Community Relations files on Higgins contain two mailing lists, dated October 1990 and November 1994.

There are no written records or remembrances by the current and former TNRCC project managers of any inquiries about the Higgins site.

Specific Objectives of the Community Relations Program

- A. Maintain open communications between the Texas Natural Resource Conservation Commission, City of Lufkin, Angelina County and State officials and concerned citizens.
- B. Continue to expand the mailing list to include additional agencies, organizations, and residents that are interested in the project.
- C. Provide a central information contact from whom interested parties can receive information on site activities, project status, and study results.
- D. Provide all information, especially technical findings, in a language that is understandable to the general public and in a form useful to interested citizens and elected officials. This will be accomplished by the preparation of fact sheets and news releases, when major findings become available during project phases.
- E. Monitor community concerns and information requirements as the project progresses by monitoring the community response to news releases and community meetings.
- F. Modify the community relations plan as changes in community attitudes and needs occur and maintain accuracy during different project phases.

Community Relations Techniques

- A. Project Status Briefings for community groups and concerned citizens (may include public meetings, if needed) - To periodically inform the general community of significant project developments and findings; to respond to inquiries accordingly and incorporate local concerns into the decision making process as appropriate.
- B. Project Mailing List - To provide the means through which press releases, project status reports and other significant communications can be distributed to concerned groups and individuals.
- C. Public Consultations - To conduct informal meetings (if needed) with residents. To provide an opportunity for affected residents to express any concerns and to make inquiries to insure effective two-way communication.
- D. Program Document Repositories - To maintain easily accessible repositories through which the public may review project outputs. The public will be periodically informed of the availability of project documents and the location of repositories via techniques A through C.
- E. State Superfund Quarterly Status Reports - Direct mail to state, local and county officials and interested persons.
- F. Revise CRP - To reflect changes in site activities or local concerns. After the Proposed Remedial Action Document (PRAD) has been issued, the CRP will be revised to address implementation of the selected remedial action alternative.

Area Elected Officials

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Texas House of Representatives
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City

The Honorable Louis Bronaugh
Mayor
City of Lufkin
P.O. Drawer 190
Lufkin, Texas 75902
Telephone: 409/634-8881

The Honorable Don Boyd
Council Member, Ward 2
City of Lufkin
P.O. Drawer 190
Lufkin, Texas 75902
Telephone: 409/634-8881

Area News Media

Lufkin Daily News
Attn. City Editor
P.O. Box 1089
Lufkin, Texas 75902
Telephone: 409/632-6631

El Sol of East Texas
Attn. Editor
104 Lakewind Drive
Lufkin, Texas 75901
Telephone: 409/637-3052

La Lengua
Attn. Editor
P.O. Box 151355
Lufkin, Texas 75901
Telephone: 409/632-8444

KYKS-FM, KTBQ-FM, KSFA-TV
Attn. News Director
P.O. Box 2209
Lufkin, Texas 75901
Telephone: 409/639-4455

KUEZ-FM, KYBI-FM
Attn. News Director
P.O. Box 1345
Lufkin, Texas 75902
Telephone: 409/634-6661

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Project Document Repositories

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